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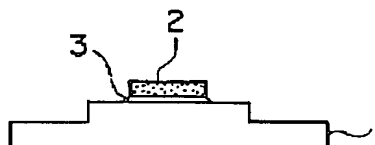
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TITLE : HIGH HEAT RADIATION METAL
COMPOSITE SHEET AND HIGH HEAT
RADIATION METAL SUBSTRATE
USING THE SAME



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a high heat radiation metal substrate by using a high heat radiation metal composite sheet having low coefficient of thermal expansion and high heat radiation characteristics, reduced in weight, and excellent in workability.

SOLUTION: A high heat radiation metal composite sheet, which is prepared by subjecting a powder mixture, consisting of, by weight, <40% copper (Cu), 0.5-5% silicon carbide (SiC), and the balance molybdenum (Mo), to compacting and to sintering and then rolling the resultant sintered compact and further has characteristics of $6.0-8.5[\times 10^{-6}/^{\circ}\text{C}]$ average thermal expansion coefficient, $\leq 10\text{g/cm}^3$ density, and $\geq 200\text{W/m.K}$ thermal conductivity, is used as a substrate material. Projection stepping is applied to this sheet to form a protrudedly stepped substrate 1. Then, a silicon chip 2 is provided onto the protrudedly stepped substrate 1 by means of a solder 3, by which the high heat radiation metal substrate can be obtained.

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